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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/749,496

12/31/2003

Joon-Hee Lim

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09/07/2006

BLAKELY SOKOLOFF TAYLOR & ZAFMAN  
12400 WILSHIRE BOULEVARD  
SEVENTH FLOOR  
LOS ANGELES, CA 90025-1030

EXAMINER

PHAM, TUAN

ART UNIT

PAPER NUMBER

2618

DATE MAILED: 09/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/749,496	Applicant(s) LIM, JOON-HEE	
	Examiner TUAN A. PHAM	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Priority*

1. Receipt is acknowledged of papers submitted under 35 U.S.C 119(a)-(d), which papers have been placed of record in the file.

### *Information Disclosure Statement*

2. The information disclosure statement (IDS) submitted on 05/02/2005 and 12/31/2003 has been considered by Examiner and made of record in the application file.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claim 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Kato et al. (U.S. Patent No.: 6,175,990, hereinafter, "Kato").**

**Regarding claim 1**, Kato teaches a hinge apparatus having a deceleration Section (see figures 1-3), comprising:

- a rotary shaft (see col.3, ln.17-20);
- a fixed cam mounted on one side of the rotary shaft (see figures 1-3, fixed cam 10, shaft 1);
- a moving cam mounted one side the fixed cam for being straightly moved along

the rotary shaft via a reciprocating motion taking place between the fixed cam and the moving cam (see figures 1-3, rotary cam 13, fixed cam 10);

an elastic means for supporting the moving cam to stretch and return to original position (see figures 1-3, spring 14);

a housing lodging the moving cam and elastic means (see figure 4, housing 16a);  
and

a frictional force generation means mounted on one side housing for generating frictional force predetermined interval during reciprocating motion taken place between the fixed cam and the moving cam (see figures 1-3, friction plate 11, col.5, ln.1-42).

**Regarding claim 2**, Kato further teaches the frictional force generation means includes a fixed friction plate mounted on another side of the rotary shaft for contacting to another side of the housing (see figures 1-3, friction plate 11, col.5, ln.1-42).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kato et al. (U.S. Patent No.: 6,175,990, hereinafter, "Kato") in view of Miura (U.S. Patent No.: 5,913,351).**

**Regarding claim 3**, Kato discloses invention but fails to disclose a fixed friction plate mounted another side of the rotary shaft; and a moving friction plate mounted on one side of the fixed friction plate for being straightly moved along the rotary shaft. However, Miura teaches such features (see figure 1, fixed friction plate 9, moving friction plate 10, col.3, ln.1-67, col.4, ln.1-31).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Miura into view of Kato in order to produce a friction torque as suggested by Miura at col.1, ln.20-27.

**7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kato et al. (U.S. Patent No.: 6,175,990, hereinafter, "Kato") in view of Kim et al. (Pub. No.: 2003/0040330, hereinafter, "Kim").**

**Regarding claim 5**, Kato discloses invention but fails to disclose said decelerating protrusions are formed in position at a particular time when the fixed cam and the moving cam pass by a fixed point during a reciprocating motion taken place between the fixed cam and the moving cam. However, Kim teaches such features (see figure 3, decelerating module 40, [0026-0030]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Kim into view of Kato in order to reduce the number of components and production cost as suggested by Kim at col.1, [0010].

***Allowable Subject Matter***

8. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**Conclusion**

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In order to expedite the prosecution of this application, the applicants are also requested to consider the following references. Although Higano et al. (U.S. Patent No. 6,948,217), Ona (U.S. Patent No. 5,966,776), Pan (U.S. Pub. No. 2004/0204201), and Koshikawa (U.S. Patent No. 6,785,936) are not applied into this Office Action; they are also called to Applicants attention. They may be used in future Office Action(s).

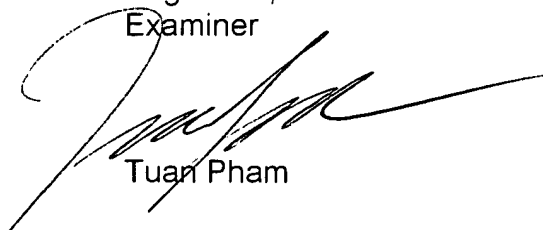
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A. Pham whose telephone number is (571) 272-8097. The examiner can normally be reached on Monday through Friday, 8:30 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Anderson can be reached on (571) 272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2618

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have question on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit 2618  
August 27, 2006  
Examiner



Tuan Pham

Supervisory Patent Examiner  
Technology Center 2600



Matthew Anderson